AMENDMENTS TO THE CLAIMS

1.   (currently amended) A method for end-to-end environmental data acquisition and delivery comprising the steps of:

        a) acquiring a first set of environmental subsurface data in a first location via direct reading sensors;

        b) geo-referencing said data;

        c) transmitting said data to a data analysis application server; and

        d) analyzing said data to obtain information about said data; and

        e) using said information to select a next location.

2.   (original) The method of claim 1, wherein said data of step (a) comprises: one or more data parameters.

3.   (currently amended) The method of claim 1, wherein said environmental subsurface data relates to at least one of chemical and or geological attributes of the subsurface.

4.   (currently amended) The method of claim 1, wherein said direct reading sensors of step (a) comprise at least one of:

        direct sensing technologies;

        optical sensors;

        chemical sensors;

        electromechanical sensors;

        membrane interface probe (MIP) sensors;

        advanced MIP sensors;

laser induced fluorescence (LIF) sensors;

ultraviolet induced fluorescence (UVF) sensors;

polymer sensors; ~~and~~ or

haloprobe sensors.

5.   (currently amended) The method of claim 1, wherein said geo-referencing of said step (b) comprises at least one of:

geo-referencing in at least two dimensions; ~~and~~ or

geo-referencing said data to a specific point on the earth's surface.

6.   (currently amended) The method of claim 5, wherein said at least two dimensions comprise at least one of:

latitude, longitude, altitude, ~~and~~ or time.

7.   (original) The method of claim 1, wherein said geo-referencing of said step (b) comprises:

geo-referencing in at least three dimensions.

8.   (currently amended) The method of claim 7, wherein said at least three dimensions comprise at least one of: latitude, longitude, altitude, ~~and~~ or time.

9.   (currently amended) The method of claim 1, wherein said transmitting of step (c) comprises at least one of:

transmitting via a communications link;

transmitting via the Internet; ~~and~~ or

transmitting via a wireless communications link.

10.   (original) The method of claim 1, wherein said application server of step (c) comprises:

an application service provider (ASP).

11.   (currently amended) The method of claim 1, wherein said step (d) comprises at least one of:

storing said data in a database;

mining said data;

calculating said information from said data using an algorithm;

performing visualization processing in at least two dimensions; displaying a

graphical visualization of said data;

mapping said data; ~~and~~ or

displaying in at least one of: two-dimensional and three-dimensional formats

said data.

12.   (currently amended) The method of claim 1, wherein said step (d) comprises at least one of:

refining raw data into processed data;

normalizing said data for variations in acquisition of said data;

normalizing for condition of a membrane of a membrane interface probe

(MIP);

normalizing for variation of actual subsurface conditions including at least

one of chemical concentration and soil water matrix;

determining relative quality efficacy data including determining at least one

of: pressure, flow rate, condition of detectors, drift, calibration, depth of probe,

hydrostatic, and baseline noise of analytical/electrical system;

storing said data;

aggregating said data into aggregate data;

determining predictive modeling using said aggregate data;

assessing measure of risk using said aggregate data;

evaluating risk using said aggregate data;

calculating total mass of chemical compounds;

calculating volume of affected soil and groundwater;

calculating compound identification,

calculating removal costs,

performing sensitivity analysis, ~~and~~ or

comparing data of multiple sites.

13.   (currently amended) The method of claim 12, wherein said step of performing a sensitivity analysis comprises at least one of:

displaying using a "dashboard" type display; ~~and~~ or

providing results to at least one of an office device, and a field device.

14.   (currently amended) The method of claim 1, further comprising:

~~e)~~f)posting said information ~~on a web site~~ for access by authorized users.

15.   (currently amended) The method of claim 14, wherein said ~~web site~~ posting comprises at least one of:

posting on a website; or

posting on a secure Internet Web site.

16.   (currently amended) The method of claim 1, further comprising:

e)f)transmitting said information over a network to a ~~mobile~~ device.

17.   (currently amended) The method of claim 16, wherein said network comprises at least one of:

        a wired network; or

        a wireless network.

18.   (currently amended) The method of claim 1, further comprising at least one of:

        e)f)aggregating said data into a database;

        f)g)   mining said database;

        g)h)   determining predictive modeling using said aggregate data;

        h)i)   assessing measure of risk using said aggregate data;

        i)j)   evaluating risk using said aggregate data;

        k)   j)providing the user with relative analysis of various sites based on at least one of: geological information, and contaminant conditions; and

        k)l)   storing said data in a database;

        l)m)   grooming data;

        m)n)   comparing data to at least one of: historical data, and data from other sites;

        n)o)   performing datamining; ~~and~~ or

        o)p)   ranking sites.

19.   (currently amended) The method of claim 1, further comprising:

        d) f)   transmitting said information comprising:

i. transmitting said information including completed data analytics via the Internet back to source location for decision-making and process changes; and

ii. transmitting said information wirelessly to a mobile device to facilitate access via Internet protocols to said information analyzed from said sensor outputs.

20.   (currently amended) The method of claim 1, further comprising at least one of:

~~f)~~e)   normalizing said data for variations in at least one of: acquisition of said data, condition of membrane of a membrane interface probe (MIP), subsurface conditions including at least one of chemical concentration ~~and~~ or soil water matrix; ~~and~~ or

~~g)~~f)   determining relative quality efficacy data including determining at least one of: pressure, flow rate, condition of detectors, drift, calibration, depth of probe, hydrostatic, ~~and~~ or baseline noise of analytical/electrical system.

21. (new) A method for end-to-end environmental data acquisition and delivery comprising the steps of:

a) acquiring environmental subsurface data at a location via direct reading sensors;

b) geo-referencing said data, wherein said geo-referencing comprises associating said environmental subsurface data with said location; and

c) transmitting said data to a data analysis application server adapted to analyze said data to obtain information about said data.

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22. (New) The method of claim 21, further comprising:

    receiving said information from said data analysis application server.

23. (New) A method for environmental subsurface data acquisition and analysis comprising:

    receiving environmental subsurface data acquired at a location via direct reading sensors;

    receiving said location;

    georeferencing said data by said location; and

    analyzing said data to obtain information.